

## **REMARKS**

Upon entry of this amendment, claims 1-28 are pending. Claim 12 has been amended to merely correct a typographical error in the structure. Support for this correction can be found in Figure 2 and structures 2 and 2a in Figure 3 in the specification. Claims 29-48 were withdrawn and have been canceled without prejudice for the reasons set forth below. No new matter has been added.

Applicants note that in item 10 on page 5 of the Office Action, the Examiner has indicated that claims 9-28 would be allowable if rewritten in independent form.

### **I. Restriction Requirement**

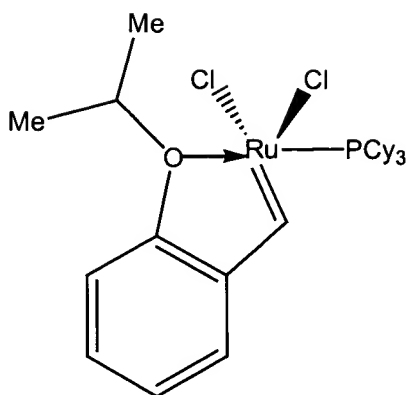
Applicants hereby affirm the election with traverse, as requested in the Office Action, to prosecute the invention of **Group I, claims 1-28**. Claims 29-48 have been withdrawn by the Examiner as directed to a non-elected invention. In the interest of furthering prosecution of the instant application, Applicants have canceled claims 29-48 without prejudice. The cancellation of the non-elected claims should not be construed as a surrender of any subject matter. Applicants reserve the right to prosecute claims 29-48 in a divisional application.

### **II. Claim Rejections Under 35 U.S.C. § 102(b)**

Claims 1-8 were rejected under 35 U.S.C. §102(b) as anticipated by Kingsbury et al. (J. Am. Chem. Soc., 121, 791-799(1999)). Applicants respectfully traverse this rejection.

Applicants note that the Kingsbury et al reference was submitted by Applicants with the Information Disclosure Statement of March 13, 2002. Applicants disclose this reference on page 2, lines 3-4 and 7-11 of the specification of the present application.

Kingsbury et al. is drawn to a ruthenium-based metathesis catalyst having an internal metal-oxygen chelate. The Examiner cites the following compound disclosed in Kingsbury et al. and argues that it anticipates claims 1-8.



This compound is identical to the metal chelate structure depicted in Figure 1 of the present application and described to be a prior art compound in the specification on page 7, lines 20-21. The PCy<sub>3</sub> substituent in that compound is a tricycloalkylphosphine group. The Y substituent defined in claim 1 is distinctly different from the PCy<sub>3</sub> group disclosed in Kingsbury et al.

Y is explicitly defined in claim 1 to be an *electron-donating heterocyclic carbene ligand*. The corresponding substituent for Y in Kingsbury et al. is PCy<sub>3</sub>. **PCy<sub>3</sub> is not an electron-donating heterocyclic carbene ligand.**

PCy<sub>3</sub> is a phosphine moiety having a phosphorous atom linked to a cycloalkyl structure, such as cyclohexyl. (See specification, page 10, lines 21-22 and Figure 1) PCy<sub>3</sub> is not a carbene ligand. In an example in the present application, Formula 5, a compound of the invention, was formed by replacing the PCy<sub>3</sub> ligand of Formula 3 with an imidazolin-2-ylidene system carbene ligand. (See specification, Equation 1 on page 9; Example 5 on page 35) The specification (page 10, lines 15-22; page 12, lines 2-8) compares the proton-NMR of the compound of formula 5 with the prior art compound disclosed in Kingsbury et al. The specification distinguishes the compounds by stating that some of the differential structural attributes between the compounds “may be attributed to [the] higher electron density at the transition metal center of Formula 5, *caused by the stronger electron donation by the heterocyclic ligand ... [as] compared to PCy<sub>3</sub>* (Cy is an aliphatic cycloalkyl moiety, preferably cyclohexyl).” [emphasis added]

It is well established that, in order to anticipate a claim, the prior art reference must teach each and every limitation of the claim. Independent claim 1 requires Y to be an electron-donating heterocyclic carbene ligand. The corresponding ligand to Y in the compound disclosed in Kingsbury et al. is  $\text{PCy}_3$  (tricycloalkyl phosphine).  $\text{PCy}_3$  is neither a heterocyclic ligand nor a carbene ligand. Thus, Kingsbury et al. does not teach (or suggest) the electron-donating heterocyclic carbene ligand of the compound of claim 1.

Therefore, claims 1-8 are not anticipated by the disclosure of Kingsbury et al. and the instant rejection should be withdrawn.

Claims 1-8 are rejected under 35 U.S.C. §102(b) as being anticipated by Harrity et al. (J. Am. Chem. Soc., 120, 2343-2351(1998)). Applicants respectfully traverse this rejection.

As was the case with the Kingsbury et al. reference discussed above, the Harrity et al. reference was submitted by Applicants with the Information Disclosure Statement of March 13, 2002. Harrity et al. was disclosed by Applicants on page 2, lines 6-7 of the specification of the present application.

Harrity et al. is drawn to chromenes formed by metal-catalyzed reactions. The Examiner cites a metal complex compound from Harrity et al. and argues that Harrity et al. anticipates claims 1-8. However, the compound cited by the Examiner in the instant rejection is the identical compound cited in the rejection over Kingsbury et al. Thus, all the above arguments regarding the rejection over Kingsbury et al. apply equally to the instant rejection over Harrity et al.

As discussed previously with respect to Kingsbury et al., claim 1 explicitly requires the Y substituent to be an electron-donating heterocyclic carbene ligand. The corresponding substituent in the compound disclosed in Harrity et al. is  $\text{PCy}_3$ .  **$\text{PCy}_3$  is not an electron-donating heterocyclic carbene ligand.**

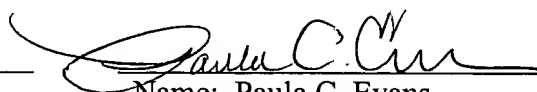
It is well established that, in order to anticipate a claim, the prior art reference must teach each and every limitation of the claim. Harrity et al. does not teach (or suggest) the electron-donating heterocyclic carbene ligand limitation of claim 1. Thus, Harrity et al. does not anticipate claims 1-8 of the present application and the instant rejection should be withdrawn.

Accordingly, claims 1-8 are not anticipated by the disclosures of Kingsbury et al. or Harrity et al.

Applicant submits that all claims are allowable as written and respectfully request early favorable action by the Examiner. If the Examiner believes that a telephone conversation with Applicant's attorney/agent would expedite prosecution of this application, the Examiner is cordially invited to call the undersigned attorney/agent of record.

Respectfully submitted,

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